

## SECTION 600.00 - CONSTRUCTION AND MAINTENANCE

### SECTION 601.00 - GENERAL

**601.01 Basic Principles.** The safety of motorists, pedestrians, and workers is the top priority and must be an integral part of every project. The same basic safety principles that govern the design of permanent roadways and roadsides are required for work zones.

The movement of traffic should be inhibited as little as possible. Drivers will only reduce their speed when a clearly perceived need is recognized; so, speed reduction zones should be limited to work areas and time periods that specifically justify their use. The goal should be to route traffic through the work area in a manner comparable to normal highway situations.

Traffic control through work zones may be a short duration of a few hours (such as maintenance projects) or may be required for longer periods of time. For any project not completed within a normal work day, traffic control is a 24-hour requirement and monitoring must be done at frequent intervals throughout the duration of the operations.

**601.01.01 Work Zone Speed Limits.** Regulatory reduced speed limits may be imposed through work zones in accordance with Administrative Rule [39.03.65](#) and Administrative Policy [A-12-03](#). Regulatory work zone speed limits more than 10 mph below the normally posted speed should be avoided unless absolutely necessary for the safety of the traveling public or work force. An interstate seal coat project is an example of the type of project where short-term speed limits more than 10 mph below the normally posted speed may be required to reduce the potential for vehicle damage from flying rock.

Refer to section [103.10](#) for more information.

Idaho Code [49-657](#) provides for an enhanced penalty for speed limit violations in “construction danger zones” that are appropriately marked with signs to indicate the work zone, the reduced speed limit, and the increased fines for exceeding the reduced speed limit. Accordingly, all regulatory reduced speed limits through work zones should be posted with the R2-6 or R2-6A signs in the typical work zone signing sequence between the “ROAD WORK AHEAD” signs and the “REDUCED SPEED AHEAD” signs.

**601.02 Delays.** Traffic delays because of construction, maintenance, utility or private development operations that exceed 10 minutes at any one time, or where total interruptions exceed 15 minutes are undesirable and should be avoided. When the average daily traffic exceeds 3,000 vehicles per day on a two-lane facility or 6,000 vehicles per day on a facility with four or more lanes, the delay may have to be further reduced or eliminated if the traffic backup becomes intolerable.

Stopping or delaying Interstate traffic should always be avoided. Scheduling construction for the off peak hours, nighttime, or the use of detours are preferred methods to avoid stopping or delaying traffic.

Construction, maintenance, utility or private development work that causes traffic delays shall be scheduled to avoid morning and evening rush hours on high traffic volume highways that carry commuter traffic in major urban areas. Construction, maintenance, utility or private development work should also be scheduled to avoid events such as holidays, parades and special events that may cause traffic peaks and associated congestion.

**601.03 Traffic Control Devices.** Traffic control devices used in construction and maintenance work zones shall conform to the current Manual On Uniform Traffic Control Devices as adopted by the State.

The faces of all construction and maintenance signs (black on orange), white on red signs (STOP, YIELD, WRONG WAY and DO NOT ENTER), and the white bands of barricades, drums, tubular markers and cones, must be constructed of sheeting that meets the retroreflectivity requirements of Class B (ASTM Type III) sheeting.

**Refer to section [202.17](#) for pavement marking requirements in work zones.**

**601.03.01 Signs Mounted on Closed-Top Drums.** Signs mounted on closed-top drums in work zones shall be either M6-2L or M6-2R, with the arrow pointing in a downward position to indicate that traffic should pass to the left or right of the drum, or an M6-9, with both arrows pointing in a downward position to indicate that traffic may pass to either side of the drum ( see section [172.03](#) ).

All signs shall be 21" x 15" (.080") sheet aluminum, corrugated plastic, or other approved and crash-tested sign material for use on drums, with black on orange High Intensity Type III sheeting.

**Posted Speeds 35 MPH Or Less --** Signs mounted on closed-top drums are approved for use in all work zones where the posted work zone speed is 35 mph or less and the signs are attached per ITD specifications in Figure [601.03-01](#).

**Posted Speeds 40 MPH Or Greater--** Signs on closed-top drums are NOT approved when speeds in work zones are 40 mph or greater. Arrow panels or portable changeable message signs should be used.



## SECTION 602.00 - CONSTRUCTION PROJECTS

**602.01 Traffic Control Plan.** Construction projects must include a comprehensive traffic control plan showing the types of traffic control devices to be used and where the devices are to be placed. The contractor may propose alternate traffic control plans; however, proposed alternate plans should not enhance the contractor's operations at the expense of the safety or efficiency of traffic movement. Any changes to the traffic control plan require approval of the Regional/Resident Engineer. (See [ITD Design Manual section 400](#), Traffic Control Plan)

**602.02 Lane Closures.** On facilities with four or more (4+) lanes carrying 21,000 vehicles per day or less, at least one lane in each direction should be maintained. On facilities that carry more than 21,000 vehicles per day, at least two lanes in each direction should be maintained. However, if the facility has fewer than four lanes or if utilization of two lanes in each direction is not practical because of right-of-way or other constraints, a single lane in each direction may be used provided the traffic backup and delays can be limited as noted in section [601.02](#).

**602.03 Traffic Control Inspection.** When traffic must be maintained through all or part of a construction project, an inspector knowledgeable in traffic control shall be assigned to review and monitor traffic control features and recommend necessary changes to the Resident/Regional Engineer to move traffic safely and expeditiously through the project. The traffic control inspector should not be encumbered with other assignments to the extent that traffic control features cannot be adequately monitored. The traffic control inspector should make both daytime and nighttime inspections of the project. The District Traffic Engineer should review traffic control on construction projects at least once a month. Both daytime and nighttime inspections by the District Traffic Engineer should be included as appropriate.

**602.04 Final Traffic Report.** A Final Traffic Report is no longer required.

**602.05 Two-Lane, Two-Way Operations (TLTWO).** The following guidelines shall be used in two-lane, two-way operations (TLTWO) on one roadway of a normally divided highway:

### **602.05.01 Definitions.**

**Long-term stationary:** Work that occupies a location more than 3 days.

**Intermediate-term stationary:** Work that occupies a location from overnight to 3 days.

**Short-term stationary:** Daytime work that occupies a location from 1 to 12 hours.

**602.05.02 Long-Term Operations.** As a minimum, during long-term stationary TLTWO, traffic control devices shall be installed in accordance with Figures [602.05-01](#) and [602.05-02](#). In addition, the following requirements shall apply:

- Conflicting pavement markings shall be removed and temporary markings installed the day traffic patterns are changed.
- Markings shall be retroreflective.

- Temporary raised pavement markers shall be rigid; seal coat tabs are not acceptable.
- Tubular marker bases and temporary rigid raised pavement markers shall be fastened to the pavement with an approved adhesive in accordance with the manufacturer's recommendations. Weighted bases or nailing bases to the pavement are not satisfactory methods of fastening tubular markers to the highway.
- Portable concrete barriers with attached yellow reflective delineators may be substituted for tubular markers to separate opposing lanes of traffic. The existing markings may be retained if they are completely obscured by the barriers. No additional pavement markings are required adjacent to the barrier sections.
- Lane lines shall be striped.
- Removable tape markings are an acceptable substitute for traffic paint.

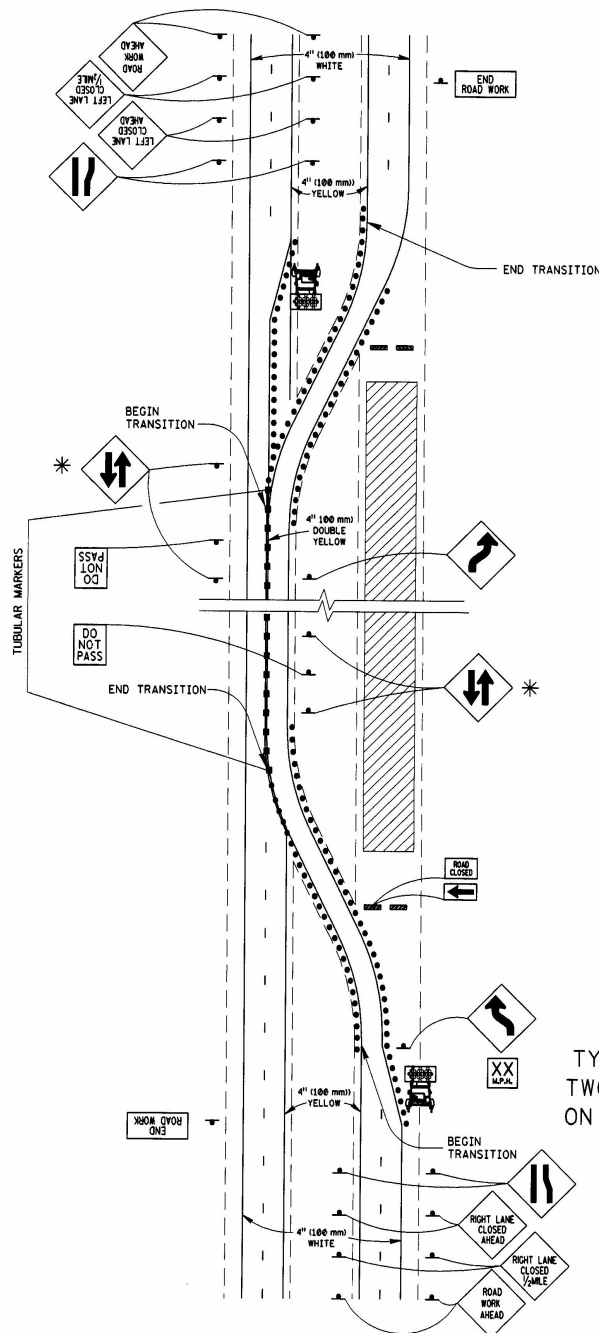
**602.05.03 Intermediate-Term Operations.** As a minimum, during intermediate-term stationary TLTWO, traffic control devices shall be installed in accordance with Figures [602.05-01](#) and [602.05-03](#). Traffic control shall meet the requirements for long-term operations, as described herein, with the following exceptions:

- Existing pavement markings may be retained.
- The striping of additional pavement markings is not required.
- Temporary flexible raised pavement markers shall be installed on transitions.
- Temporary flexible raised pavement markers may be used in the tangent sections.

**602.05.04 Short-Term Operations.** As a minimum, during short-term stationary TLTWO, traffic control devices shall be installed in accordance with section [601.03](#), Traffic Control Devices, and Figures [602.05-01](#) and [602.05-04](#). Traffic control shall meet the requirements for long-term operations, as described herein, with the following exceptions:

- Existing pavement markings may be retained.
- The striping of additional pavement markings is not required.
- Temporary flexible raised pavement markers may be used.
- Two weighted bases may be used to secure tubular markers.
- Raised pavement markers are not required in transition zones.

**602.05.05 Project Completion.** When the TLTWO is complete, temporary pavement markings and traffic control devices shall be removed. Permanent pavement markings or traffic paint markings conforming to the MUTCD requirements shall be installed before the roadway is opened to traffic.



NOTES:

1. DRUM SPACING SHALL BE IN ACCORDANCE WITH SECTION 6F.55, PART 6 OF THE MUTCD AS ADOPTED BY THE STATE.
2. ADDITIONAL SIGNS MAY BE REQUIRED.
3. SEE ATTACHMENTS #2, #3 & #4 FOR SPACING OF TUBULAR MARKERS AND TEMPORARY RAISED PAVEMENT MARKERS.

- \* 4. WHEN THE TWO-LANE, TWO-WAY OPERATION IS OVER ONE MILE IN LENGTH, THE SIGN SPACING SHALL NOT EXCEED ONE MILE INTERVALS IN EACH DIRECTION.

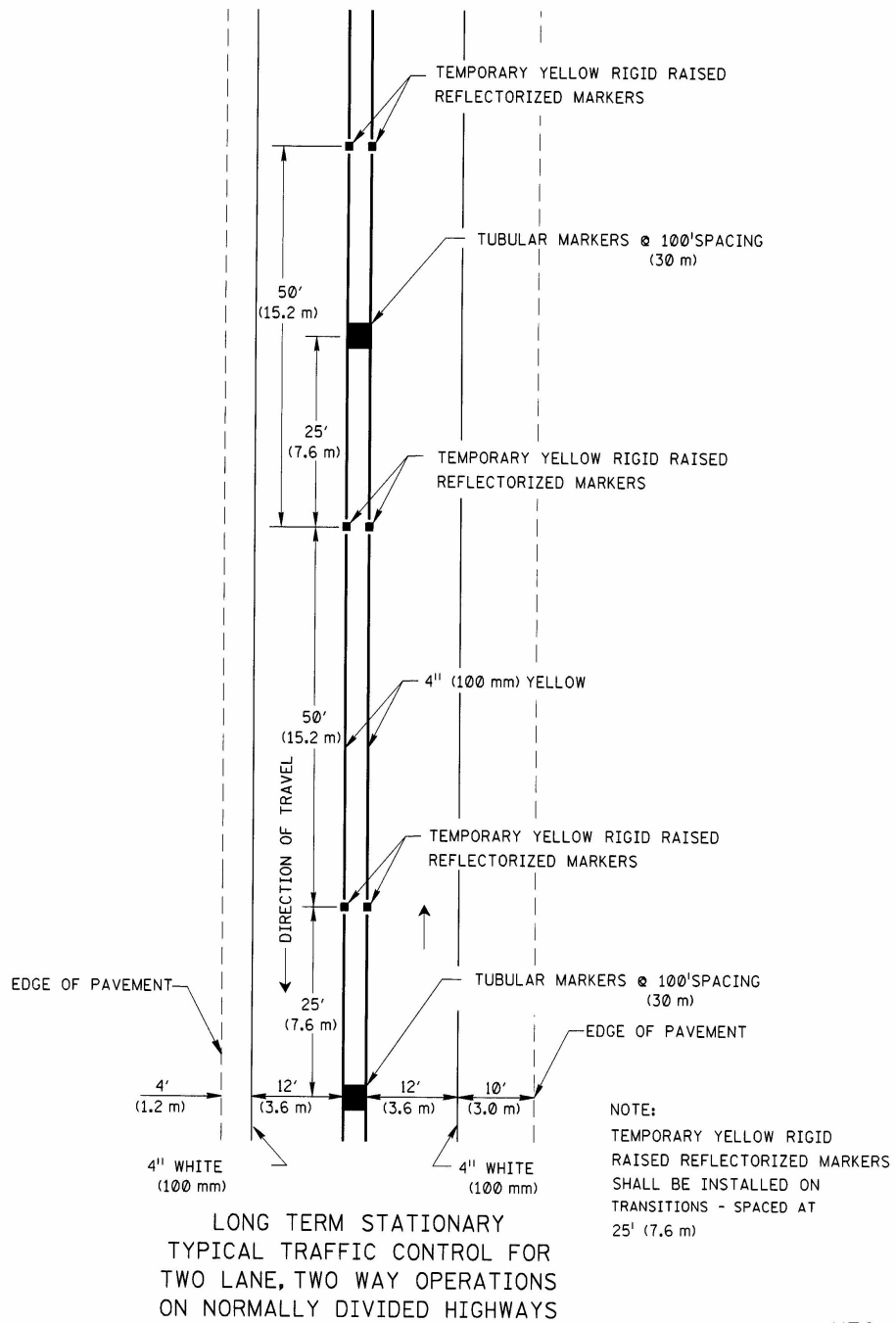
LEGEND

- TUBULAR MARKERS
- DRUMS

TYPICAL TRAFFIC CONTROL FOR TWO LANE, TWO WAY OPERATIONS ON NORMALLY DIVIDED HIGHWAYS

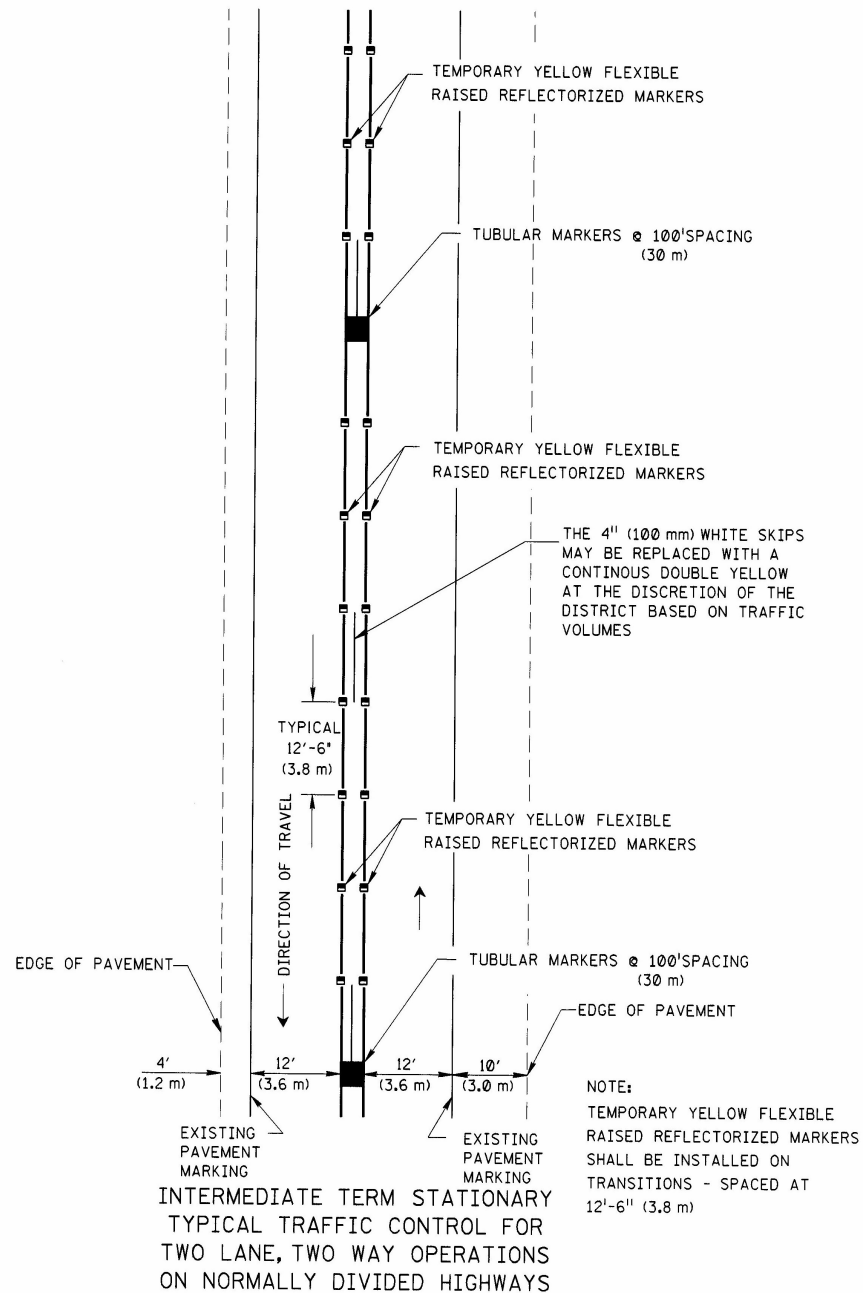
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Figure 602.05-01 Typical Traffic Control For Two-Lane, Two-Way Operations On Normally Divided Highways



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**Figure 602.05-02 Long Term Stationary Typical Traffic Control For Two-Lane, Two-Way Operations On Normally Divided Highways**



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**Figure 602.05-03 Intermediate Term Stationary Typical Traffic Control For Two-Lane, Two-Way Operations On Normally Divided Highways**



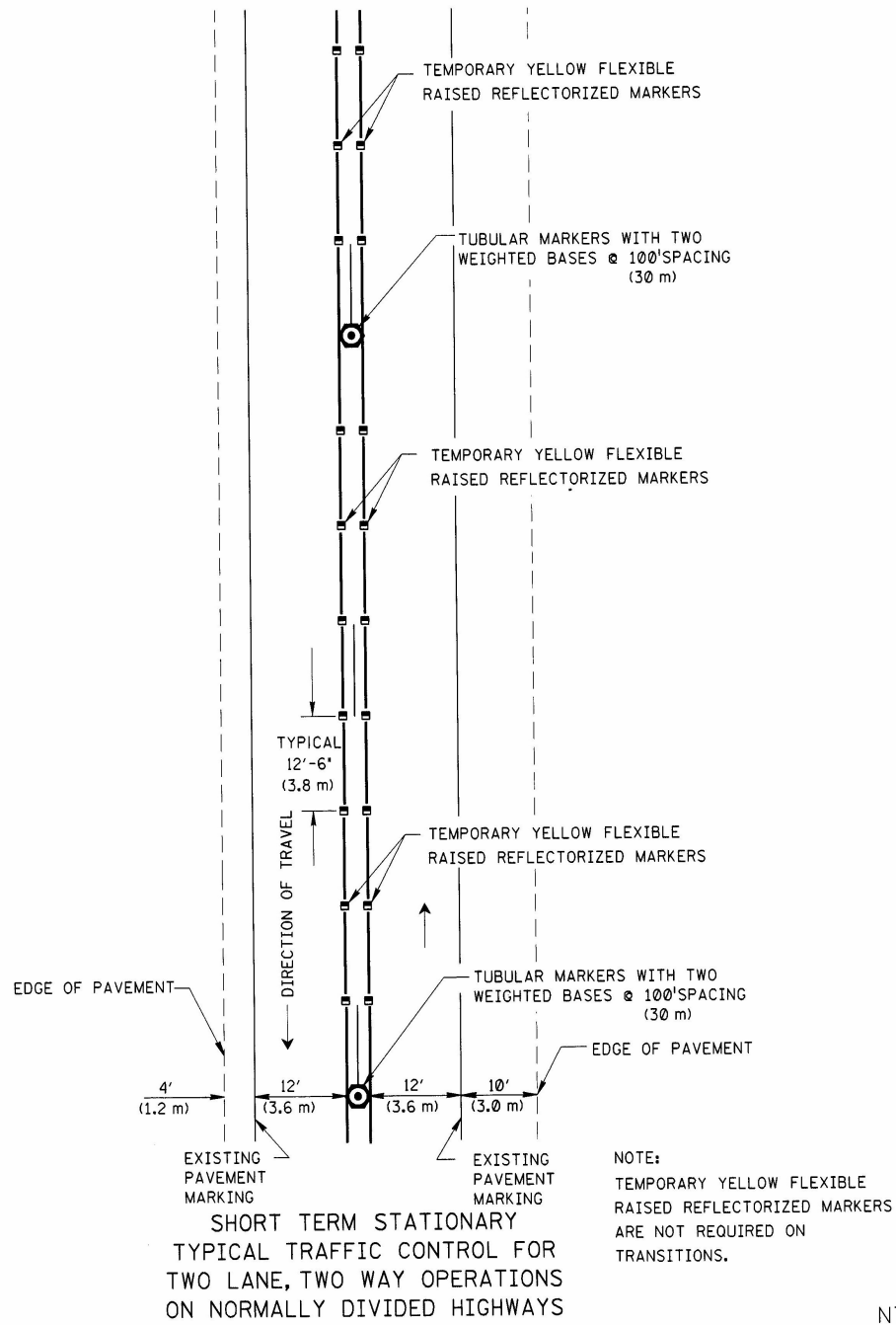


Figure 602.05-04

Short Term Stationary Typical Traffic Control For Two-Lane, Two-Way Operations On Normally Divided Highways

## **SECTION 603.00 - MAINTENANCE OPERATIONS**

**603.01 Traffic Control Plan.** A traffic control plan for maintenance operations shall be chosen from standard plans or prepared by the supervisor in charge. The specific plan used shall be documented by the supervisor.

The supervisor in charge of a maintenance operation shall be directly responsible for review and monitoring of traffic control features. If the supervisor must be absent from the operation for more than two hours, a member of the crew, who is knowledgeable in traffic control, will be designated to review and monitor the traffic control. The District Traffic Engineer/Supervisor should spot check traffic control on long duration projects and in heavy traffic volume areas.

Refer to Section **51**, “Traffic Control,” of the Maintenance Manual, for additional information.

## **SECTION 604.00 - UTILITY/PRIVATE DEVELOPMENT WORK**

**604.01 Traffic Control Plan.** Permits for utility and private development work on highway right-of-way shall include specific traffic control requirements and restrictions. A traffic control plan shall be submitted by the utility company or private developer whenever the Engineer determines a plan is warranted.

The Maintenance Foreman for the area where the utility or private development work is being done shall designate a qualified person to review the traffic control operation of the utility company or developer’s contractor, as necessary, to ensure compliance with the terms of the permit.

Refer to Section **51**, “Traffic Control,” of the Maintenance Manual, for additional information.

## **SECTION 605.00 - SPECIAL EVENTS**

**605.01 Traffic Control Plan.** Scheduled activities such as sporting events, parades, major concerts, or major conventions can have significant impacts on traffic operations. Special events usually generate large volumes of traffic, and congestion generally occurs on highway segments at or near the generator. Managing traffic during special events can result in reduced congestion and delay and improved safety.

A traffic control plan must be submitted by the event sponsor at least 20 working days in advance of the event for approval by the District Engineer. The traffic control plan shall be in accordance with the MUTCD, as adopted by the state, and shall specifically address the type of temporary traffic control to be used at locations near the generator that will be affected by the special event or where existing traffic control devices are placed out of service during the event. Detour routes should be provided wherever possible.

**605.02 Requirement For Agreement.** Administrative Policy [A-12-02](#) contains the requirements for special events on the state highway system. In general, an agreement and a liability insurance policy for a minimum of \$1,000,000 that lists the Idaho Transportation Department as an additional insured is required for any event on the state highway system that will not observe traffic control

devices, will affect the normal operation or flow of traffic, or will impact the safety of the traveling public.

**605.03 Special Events on Interstate Highways.** Federal Highway Administration (FHWA) approval of ALL modifications to access control on interstate highways shall be obtained prior to beginning any event that requires access modification or break of the access control fence. Examples of access control modifications include a break in right of way fences and ramp closures. All requests for access modification on interstate highways will be coordinated through the State Traffic Engineer in writing to the FHWA Idaho Division Administrator.

See 23 CFR 630 and <http://www.fhwa.dot.gov/legsregs/directives/fapg/0630csup.htm> for guidance.